

97-84091-16

U.S. National Bureau of
Standards

How to own your home

Washington

1931

97-84091-16

MASTER NEGATIVE #

COLUMBIA UNIVERSITY LIBRARIES
PRESERVATION DIVISION

BIBLIOGRAPHIC MICROFORM TARGET

ORIGINAL MATERIAL AS FILMED - EXISTING BIBLIOGRAPHIC RECORD

308 Taylor, James Spear, 1896-
 Z ~~Gries, John Matthew, 1877-~~
 Box 356 ... How to own your home: a handbook for prospective home owners. Prepared by John M. Gries [and] James S. Taylor. Foreword by Herbert Hoover. <2d ed., August, 1931> ... Washington, U. S. Govt. print. off., 1931.
 VIII, 28 p. incl. tables. 24cm. (U. S. Bureau of standards. Building and housing publication, BH17)
 At head of title: U. S. Department of commerce. -R. P. Lamont, secretary. Bureau of standards. George K. Burgess, director. <"Supersedes BH4">
 1. Dwellings. I. Taylor, James Spear, 1896- joint author.
 II. Title.

Library of Congress HD1341.G7 1931 31-28397
 Copy 2. 333.3

RESTRICTIONS ON USE: Reproductions may not be made without permission from Columbia University Libraries.

TECHNICAL MICROFORM DATA

FILM SIZE: 35mm

REDUCTION RATIO: 10:1

IMAGE PLACEMENT: IA (IIA) IB IIB

DATE FILMED: 5/19/97

INITIALS: TLM

TRACKING #: 24579

FILMED BY PRESERVATION RESOURCES, BETHLEHEM, PA.

DEPARTMENT OF COMMERCE
HERBERT HOOVER, SECRETARY

HOW TO OWN YOUR HOME

A HANDBOOK FOR PROSPECTIVE
HOME OWNERS



308

Z

Box 356

WASHINGTON
GOVERNMENT PRINTING OFFICE
1925

DEPARTMENT OF COMMERCE

HERBERT HOOVER, SECRETARY

HOW TO OWN YOUR HOME

A HANDBOOK FOR PROSPECTIVE HOME OWNERS

PREPARED BY

JOHN M. GRIES AND JAMES S. TAYLOR
DIVISION OF BUILDING AND HOUSING
BUREAU OF STANDARDS



BROWN - CRESS and CO., Inc.
SEVENTH FLOOR NATL. BANK BLDG.
REAL ESTATE DEPT.

Sold by the Superintendent of Documents, Government Printing Office
Washington, D. C.

WASHINGTON
GOVERNMENT PRINTING OFFICE
1925

308

Z

Box 356

repl.

CONTENTS.

	Page.
FOREWORD	v
PERCENTAGE OF HOME OWNERSHIP	vii
INTRODUCTION	1
PROBLEMS OF HOME OWNERSHIP	2
HOW MUCH TO PAY FOR A HOME	2-4
How much can one afford to pay for a home?	2
The range of safe expenditure	3
Percentage of income to devote to payments	3
Where does money count for most?	3
WRITTEN AGREEMENTS	4
FINANCING	4-9
Saving required	4
Saving with a budget	5
Safety for savings	5
Where not to put savings	5
Speculation in lots	6
Policy loans unwise	6
Mortgages	6
First mortgages	6
Second mortgages	7
Discounts on second mortgages	7
Lender must be honest	7
Financing during building	8
Borrowing from building and loan associations	8
Purchase where title does not pass at once	8
Paying off the loan by installments	8
GENERAL PROPERTY CONSIDERATIONS	9-14
Basis for the choice	9
List of considerations	9
General location	10
Low or high land values	10
Transportation facilities	11
Protection for the home	11
Specific location	11
Character of the neighborhood	11
Schools, parks, and playgrounds	11
Desirable points for the lot	11
Buying a lot	12
How much to spend for the lot	12
Checking property values	13
Making the purchase	13
Examination of title	14
HOUSE PLANS AND QUALITY OF CONSTRUCTION	14-16
General arrangement	14
Living room and fireplace	15
Dining room	15
Kitchen	15
Bed rooms and closets	15

HOUSE PLANS AND QUALITY OF CONSTRUCTION—Continued.	Page.
Bath room.....	15
Stairways.....	15
Basement.....	15
Conveniences.....	16
Exterior of house.....	16
Setting of house.....	16
BUYING OR BUILDING.....	16
BUILDING A HOUSE.....	16-19
Knowing one's wants.....	16
Complete house plans.....	17
Obtaining building permit.....	17
Contracting with one or many.....	17
Selecting the contractor.....	18
Building contracts.....	18
All contracts should be signed.....	18
Paying contractor.....	18
Ways of reducing the building cost.....	19
Things which can not be seen.....	19
BUYING A HOUSE.....	20-22
Buying a new or an old house.....	20
Points to be examined.....	20
Condition of plaster means much.....	20
Woodwork.....	20
Plumbing fixtures.....	20
Heating plant.....	21
Painting.....	21
Roofing.....	21
Other items.....	21
MAINTENANCE COSTS AND EXPENSES OF HOME OWNERSHIP.....	22-23
Renewals and repairs.....	22
Property tax and special assessments.....	23
Insurance.....	23
Water tax or rent.....	23
Accessories.....	23
Improvements.....	23
CONCLUSION.....	23
APPENDIX.—Financing tables and notes.....	24-28

FOREWORD.

By HERBERT HOOVER.

Buying or building a home requires the use of sound judgment in seeing that the personal needs of the family are best met with the funds available. It involves not only the carrying on of transactions of financing and buying or building, but it involves the proper determination of location with respect to school, to work, and to neighborhood.

This handbook aims to set down the broad outlines of the problem as they confront the home seeker and to describe the steps and precautions to be taken in carrying out the transaction with the least possible risk and the best assurance of final satisfaction. Mention is made throughout of the assistance that may be expected from the various groups or institutions with whom the home buyer or home builder will ordinarily deal.

Maintaining a high percentage of individual home owners is one of the searching tests that now challenge the people of the United States. The present large proportion of families that own their homes is both the foundation of a sound economic and social system and a guarantee that our society will continue to develop rationally as changing conditions demand.

A family that owns its home takes a pride in it, maintains it better, gets more pleasure out of it, and has a more wholesome, healthful, and happy atmosphere in which to bring up children. The home owner has a constructive aim in life. He works harder outside his home; he spends his leisure more profitably, and he and his family live a finer life and enjoy more of the comforts and cultivating influences of our modern civilization. A husband and wife who own their home are more apt to save. They have an interest in the advancement of a social system that permits the individual to store up the fruits of his labor. As direct taxpayers they take a more active part in local government. Above all, the love of home is one of the finest instincts and the greatest of inspirations of our people.

To-day, in the period of post-war recovery, when our national productivity is increasing, we have the opportunity to make definite progress in the right direction. Moreover, the development of the automobile has given a great impulse to suburban life and an increasing possibility of home ownership. Happily, a large section of the people is awake to the problem, and an increasing number of business groups have publicly acknowledged their responsibility and

interest in it. They realize that unnecessary barriers that may encompass a man determined to own his home are hindrances to good community spirit and to good business. They see that taking a neighborly interest in developing sound financing and other machinery for the use of home seekers, and insisting on the observance of honest, straightforward methods by those who deal with home seekers is not paternalism but good business and good citizenship. It is the "square deal"—and it is not only right but essential that the cards should not be stacked against the home seeker.

It is my wish in this foreword to express appreciation of the whole-hearted cooperation received from the great number of individuals and associations at whose suggestion this handbook has been prepared, and who have contributed so largely to it by furnishing subject matter and constructive criticisms of preliminary drafts. Their assistance was especially valuable, since it came from persons entitled to speak with confidence on account of their many years' services in behalf of home seekers.

Home ownership in the United States: Percentage of families owning their homes, by divisions and States, 1900, 1910, and 1920.
[Figures from the Bureau of the Census.]

Division and State.	Per cent of families owning their homes.			Decrease or increase from 1900 to 1920.
	1900	1910	1920	
United States.....	45.1	45.8	45.6	-0.5
Geographic divisions:				
New England.....	42.0	39.7	39.8	-2.2
Middle Atlantic.....	36.3	35.1	37.2	+0.9
East north central.....	53.9	52.5	52.3	-1.6
West north central.....	58.2	58.2	56.4	-1.8
South Atlantic.....	40.1	40.9	42.0	+1.9
East south central.....	42.0	42.3	42.7	+0.7
West south central.....	44.1	42.9	42.2	-1.9
Mountain.....	37.6	38.5	35.2	-2.4
Pacific.....	46.7	53.0	47.9	-1.9
New England:				
Maine.....	64.5	62.3	59.6	-4.9
New Hampshire.....	53.5	51.0	49.8	-3.7
Vermont.....	60.1	58.4	57.5	-2.6
Massachusetts.....	34.9	33.1	34.8	+1.9
Rhode Island.....	28.6	28.3	31.1	+2.5
Connecticut.....	38.9	37.2	37.6	-1.3
Middle Atlantic:				
New York.....	33.1	30.9	30.7	-2.4
New Jersey.....	34.2	35.0	38.3	+4.1
Pennsylvania.....	41.1	41.5	45.2	+4.1
East north central:				
Ohio.....	52.4	51.2	51.6	-0.8
Indiana.....	55.9	54.7	54.8	-1.1
Illinois.....	44.9	44.0	43.8	-1.1
Michigan.....	62.9	61.6	58.9	-3.1
Wisconsin.....	66.2	64.4	63.6	-2.6
West north central:				
Minnesota.....	63.0	61.7	60.7	-2.3
Iowa.....	60.5	58.4	58.1	-2.4
Missouri.....	50.5	50.9	49.5	-1.0
North Dakota.....	70.2	75.1	63.3	-13.9
South Dakota.....	70.9	67.9	61.5	-9.4
Nebraska.....	56.6	59.0	57.4	-1.6
Kansas.....	58.9	59.1	56.9	-2.0
South Atlantic:				
Delaware.....	36.2	40.6	44.7	+8.5
Maryland.....	39.7	43.9	49.9	+10.2
District of Columbia.....	24.0	25.2	30.3	+6.3
Virginia.....	48.2	51.2	51.1	-0.1
West Virginia.....	54.1	49.2	46.8	-7.3
North Carolina.....	46.0	47.0	47.4	+1.4
South Carolina.....	29.9	30.6	32.2	+2.3
Georgia.....	50.9	50.4	50.9	+0.9
Florida.....	46.1	43.7	42.5	-3.6
East south central:				
Kentucky.....	51.2	51.4	51.6	+0.4
Tennessee.....	45.8	46.7	47.7	+1.9
Alabama.....	33.9	34.9	35.0	+1.1
Mississippi.....	34.2	34.0	34.0	-0.2
West south central:				
Arkansas.....	47.2	48.4	45.1	-2.1
Louisiana.....	31.9	32.9	33.7	+2.7
Oklahoma.....	54.0	45.4	45.5	-8.5
Texas.....	46.3	45.1	42.8	-3.5
Mountain:				
Montana.....	56.0	59.3	60.5	+4.5
Idaho.....	70.7	67.3	60.5	-10.2
Wyoming.....	53.9	54.1	51.9	-2.0
Colorado.....	46.3	51.3	51.6	+5.3
New Mexico.....	68.0	70.3	59.4	-8.6
Arizona.....	56.8	45.9	42.8	-14.0
Utah.....	67.5	64.6	60.0	-7.5
Nevada.....	65.8	53.3	47.6	-18.2
Pacific:				
Washington.....	53.9	57.1	54.7	-3.2
Oregon.....	58.1	58.7	54.5	-3.6
California.....	46.0	46.4	45.7	-0.7

NOTE.—The above table shows that in 1900, out of every 1,000 families in the United States 451 owned the homes they lived in, while in 1920, the proportion had dropped to 456 out of every 1,000 families. Twenty States and the District of Columbia showed an increase in percentage of home ownership, while the remaining 28 States showed a decrease. The 10 leading States in respect to home ownership in 1920 were, in order, North Dakota, Wisconsin, South Dakota, Idaho, Minnesota, Montana, Utah, Maine, New Mexico, and Michigan.

Home ownership in cities with 100,000 or more inhabitants, 1900, 1910, and 1920.
(Figures from the Bureau of the Census.)

City.	Per cent of families owning their homes.			Decrease or increase from 1900 to 1920.
	1900	1910	1920	
Akron, Ohio.....	63.7	50.4	44.7	-19.0
Albany, N. Y.....	23.3	26.9	28.7	+5.4
Atlanta, Ga.....	18.6	24.7	24.7	+6.1
Baltimore, Md.....	37.9	35.7	46.3	+18.4
Birmingham, Ala.....	13.8	28.7	28.1	+14.3
Boston, Mass.....	18.9	17.1	18.5	-1.4
Bridgeport, Conn.....	22.1	22.1	34.6	+12.5
Buffalo, N. Y.....	32.9	34.2	38.6	+5.7
Cambridge, Mass.....	21.2	18.9	17.6	-3.6
Camden, N. J.....	25.7	29.2	40.6	+14.9
Chicago, Ill.....	25.1	26.2	27.0	+1.9
Cincinnati, Ohio.....	20.9	23.2	25.7	+4.8
Cleveland, Ohio.....	27.4	35.2	35.1	-2.3
Columbus, Ohio.....	21.2	35.7	36.6	+15.4
Dallas, Tex.....	33.2	36.0	36.9	+3.7
Dayton, Ohio.....	33.0	38.1	41.9	+8.9
Denver, Colo.....	28.0	36.2	38.3	+10.3
Des Moines, Iowa.....	38.5	45.6	51.1	+12.6
Detroit, Mich.....	39.1	41.2	38.3	-0.8
Fall River, Mass.....	18.0	17.8	19.7	+1.7
Fort Worth, Tex.....	38.0	34.7	38.1	+0.1
Grand Rapids, Mich.....	41.4	47.9	50.2	+8.8
Hartford, Conn.....	21.8	21.5	20.8	-1.0
Houston, Tex.....	31.7	31.4	34.2	+2.5
Indianapolis, Ind.....	33.7	34.8	34.5	-0.3
Jersey City, N. J.....	20.0	20.2	19.7	-0.3
Kansas City, Mo.....	33.7	46.1	47.6	+13.9
Kansas City, Kans.....	21.2	25.2	24.7	+3.5
Los Angeles, Calif.....	44.1	44.7	34.7	-9.4
Louisville, Ky.....	26.4	26.6	29.8	+3.4
Lowell, Mass.....	22.9	22.9	22.9	0.0
Memphis, Tenn.....	18.8	23.2	28.9	+10.1
Milwaukee, Wis.....	33.9	36.4	35.5	-0.9
Minneapolis, Minn.....	23.7	40.4	40.9	+17.2
Nashville, Tenn.....	26.0	30.6	31.9	+5.9
New Bedford, Mass.....	27.9	25.8	28.6	+0.7
New Haven, Conn.....	26.6	28.5	27.0	-1.6
New Orleans, La.....	22.2	23.1	23.1	0.0
New York, N. Y.....	12.1	11.7	12.7	+1.0
Manhattan Borough.....	4.4	2.9	2.1	-2.3
Bronx Borough.....	19.6	13.1	8.2	-11.4
Brooklyn Borough.....	13.0	18.2	19.3	+6.3
Queens Borough.....	36.4	34.6	36.7	+2.3
Richmond Borough.....	36.7	37.7	42.7	+6.0
Newark, N. J.....	21.1	20.0	20.2	-0.9
Norfolk, Va.....	17.0	20.3	23.2	+6.2
Oakland, Calif.....	41.9	46.7	42.0	-4.9
Omaha, Neb.....	29.8	41.5	43.4	+13.6
Pateron, N. J.....	23.2	24.0	27.4	+4.2
Philadelphia, Pa.....	22.1	26.6	36.8	+14.7
Pittsburgh, Pa.....	26.7	28.0	28.3	+1.6
Portland, Ore.....	31.4	46.3	44.6	+13.2
Providence, R. I.....	21.0	20.8	23.5	+2.5
Reading, Pa.....	37.1	30.4	46.6	+9.5
Richmond, Va.....	22.3	24.0	25.9	+3.6
Rochester, N. Y.....	37.8	42.1	42.5	+4.7
St. Louis, Mo.....	22.8	35.0	33.8	+1.0
St. Paul, Minn.....	20.9	41.2	46.1	+25.2
Salt Lake City, Utah.....	40.0	45.1	44.3	-0.8
San Antonio, Tex.....	38.0	40.1	37.8	-2.3
San Francisco, Calif.....	24.1	33.0	27.4	-6.7
Scranton, Pa.....	37.9	37.5	35.5	-2.4
Seattle, Wash.....	31.6	44.3	44.3	+12.7
Spokane, Wash.....	37.2	51.3	44.6	-7.4
Springfield, Mass.....	33.3	29.4	27.9	-5.4
Syracuse, N. Y.....	37.4	38.7	37.9	-0.8
Toledo, Ohio.....	43.0	44.3	49.4	+6.4
Trenton, N. J.....	26.2	31.2	38.1	+11.9
Washington, D. C.....	24.2	25.2	30.3	+6.1
Wilmington, Del.....	27.1	30.4	33.3	+6.2
Worcester, Mass.....	24.9	27.7	27.7	0.0
Yonkers, N. Y.....	23.4	23.5	23.5	0.0
Youngstown, Ohio.....	45.1	40.7	47.8	+7.1

Note.—That it is possible for a large city to increase its percentage of home ownership substantially is shown by the above table, although generalizations from the figures given must allow for the fact that the corporate limits of some cities include many suburban dependencies, while others include few or none. Obviously the growth of home ownership lies more in the fringe of cities than in the center. Fifty-five of the 68 cities with over 100,000 inhabitants in 1920 showed an increased proportion of home owners in 1920, compared with 1900, while only 13 showed a decrease. The 8 showing the greatest improvement were Omaha, Baltimore, Philadelphia, St. Paul, and Camden. Only 3 of these, however, were included in the 5 cities which in 1920 lead the largest cities of the country: Des Moines, Grand Rapids, Toledo, Omaha, and Youngstown.

HOW TO OWN YOUR HOME.

A Handbook for Prospective Home Owners.

The great majority of people have a strong desire to own their homes. Some, to be sure, are forced to move frequently from city to city, and others have not yet saved up enough to make the first payment on the purchase of a home. So there is always a need of houses to rent. But an owned home with its many satisfactions is the ideal that most families wish to secure for themselves, and this pamphlet is for their use.

The home owner is master of his dwelling. He can not be ordered to vacate, and the rent can not be raised. He can make alterations as he sees fit, and money spent for improvements adds to the value of his own property. His family feels a sense of security, and finds a stimulant in earning and saving to pay for the home and in making it attractive. Such are the rewards that each year lead hundreds of thousands of American families to buy or build homes for themselves.

It is believed that those who can afford to buy or build a home will find help and encouragement in the following pages.

The buying or building of a home deserves serious consideration. It may take an hour to read this pamphlet; it may take a few days or weeks to assemble the information any home seeker should have in hand before he takes the decisive step that will commit him to pay a large part of his annual income for 10 or 15 years and which will probably determine the neighborhood in which his children will be reared. Would any man buy a partnership in a business with less knowledge?

The pleasures and advantages of owning a home may be lost through worry about overdue payments, poor construction, or an unpleasant neighborhood. So it pays to make a careful decision and avoid such worries.

It is hoped that those families who are not yet in a position to own a home but who want to take the step also will find this pamphlet helpful, for homes may be purchased on a small down payment and monthly installments like rent. A family that has saved up enough to make a first payment and has paid its rent regularly when due has given good evidence of its ability to pay for and own a home.

Preparations for home ownership can not begin too early. The determination to acquire a home some day, and the belief that owning

one is a normal part of a well-rounded life, are the first essentials, and can be shared by children and their elders alike. Homes are usually bought from savings. Habits of saving are best begun in early childhood; but adults who have not already begun to save toward buying a home should start at once. Again, a person can not begin too young to observe the different types and features of houses; such observation is useful in making a wise purchase.

PROBLEMS OF HOME OWNERSHIP.

Many find the buying of a home the largest investment they ever make. It is a very important step. A purchase made wisely may be the stepping stone to advancement and happiness, while a mistake may cause discouragement and a loss of all one's savings.

Most men and women who buy a house have never done it before, and are usually unskilled, as people generally are in the things they do but once or twice in a lifetime. But lack of experience should deter no one.

There is a story of a man who, many years ago, came to Broadway at Times Square, and decided to wait until he believed it would be safe before crossing the crowded street. Twenty years have passed, and he is still waiting for absolute safety. The story of many a family that has been ready to own a home is only too similar.

The prospective home owner who uses his common sense in considering the real needs of his family and his ability to pay, and who checks his own judgment by consulting experienced persons, may go ahead with full confidence. He need not be frightened by the mistakes of heedless persons who have been carried away by some novel feature and coaxed into a bad bargain, or who have tried to buy beyond their means. While some risks are involved, as is usually the case in obtaining anything worth while, the danger of failure is relatively small when weighed against the advantages of an owned home.

HOW MUCH TO PAY FOR A HOME.

HOW MUCH CAN ONE AFFORD TO PAY FOR A HOME?—Every family must face this question. Most people know what they would like in the way of a home, and know that they could make payments at least equal to the rent they are now paying. When they look over houses, or plans of houses, they find some that cost too much and others that are too small or too shabby to consider. The real problem lies in getting a satisfactory home, one that will not absorb too much of the family's income nor yet be below its general living standards. Before buying, the head of the family may wisely ask himself:

1. What is the family's annual income, and what will it probably be next year and the year after?

2. If business slackens, is he likely to lose his position or have his earnings reduced?

3. Will anyone else in the family be able to earn an income?

4. What does the family now pay for rent each year?

5. How much of the income is being saved?

6. How much could the family afford to pay out each year in paying for a house, and for the expenses that go with it?

THE RANGE OF SAFE EXPENDITURE.—It is a mistake to buy beyond one's ability to pay, for that usually results in the loss of the home or in a most discouraging struggle. The purchase should be safe; thus, if a family can not pay \$7,500 for a house, a \$5,000 house may be within its means.

The amount that can be paid for a house depends partly on what interest rates are charged for the money borrowed to make the purchase and the rate at which the principal is to be paid off. These fixed payments must be met regularly, and they must be met from the family's income. It is, therefore, always best to leave some margin of safety to provide for illness or other emergency. While one may be too optimistic when an attractive house is in view, and count on increased income that he may never receive, nearly every family can and should cut down other expenses when the savings are to be invested in a home.

PERCENTAGE OF INCOME TO DEVOTE TO PAYMENTS.—If a certain family pays a sixth of its income for rent, it may be able to devote one-fourth or more to buying and maintaining a house, for the amount thus used may include both rent and savings. Rent, or payments on a home, may require anywhere from one-eighth to one-third of the family income, depending on the special circumstances in each case. In addition to interest payments and installments on the principal of a loan, allowance must be made for renewals and repairs, taxes, special assessments, insurance, water tax, and various accessories and improvements. Families accustomed to living in apartments sometimes fail to allow for the cost of fuel for heating purposes. Some of these expenses are discussed more fully on pages 22 and 23; and tables, which may aid the prospective home owner, are given on pages 24 and 25.

WHERE DOES MONEY COUNT FOR MOST?—Usually a house can be obtained for less than the amount a family could pay if it were pressed to the limit. Every family wants to spend its money so that it "goes the farthest," and the exact amount to be spent on a home can be determined wisely only by carefully checking over the family's needs and its expenses. There are, first of all, the obvious budget items of food, shelter, and clothing. Proper nutrition, especially, should not be neglected. In addition, there are expenses such as life insurance, doctors, hospitals, etc. If there are children, it may

be wise to send them away to school, to buy a piano for their use, or to give them other advantages which cost money. Every family needs a vacation and some recreation, and every family wants to contribute to worthy causes. Phonographs and automobiles or new pieces of furniture may be wanted before the house is paid for. Many other items of expense can not well be avoided. If the amount put into a house is out of proportion to other expenditures, the result is usually regretted.

In deciding how to spend money above the simple necessities of life it is always best to note which expenditures have permanent value. Money spent to provide education and wholesome outdoor life for children, for instance, will help them throughout life, while certain expensive amusements are harmful or less wholesome than the simpler forms of play. Articles for the household that are useful or in good taste, again, may serve for many years, whereas expensive foods are quickly eaten and soon forgotten.

WRITTEN AGREEMENTS.

The importance of having agreements in regard to financing, building, and purchasing, properly signed by both parties and drawn with careful attention to legal details, is stressed in this pamphlet. Although the great majority of individuals and companies with whom home seekers deal are honest and wish to do business honorably, if either party to an agreement should die or wish to move to another locality, it is important that the obligations of each should be clearly defined. The executors of a contractor's estate, for example, might not be able to carry out the terms of a loosely drawn contract as the testator intended or desired. No good business man should object to having his obligations, as he understands them, set down in writing and in accordance with legal procedure.

FINANCING.

The man who has enough cash to pay in full for a home has no worries about financing. Most people, however, can pay only part of the price in cash and are obliged to borrow the rest. It must always be remembered that *the more cash one can pay down* on a house *the better*.

Borrowing money to buy a home is no disgrace. On the contrary, it is normal and in many ways desirable. Many families in meeting payments on a loan have learned the habit of saving, and have continued it as a step toward financial independence.

SAVING REQUIRED.—Most families who buy a home must pay for it out of their own savings.

Usually it is desirable for them to possess, free from obligation, at least one-fifth, or 20 per cent, of the value of the house and lot in cash.

While arrangements often are made for a purchase with less, a larger cash payment helps to insure a loan at a low rate of interest and one that can be comfortably paid off. (See tables on pp. 24 and 25.)

In rapidly growing cities with increasing land values, the risks taken by lenders are not so great, and it is generally easier to borrow up to a larger percentage of the value of the property bought, although for the purpose of a home an increase in land values may be of no advantage, since one result is to increase taxes.

After the first payment is made, a family should be prepared to devote a certain amount of current savings toward paying off the loan at regular intervals.

SAVING WITH A BUDGET.—It is necessary to determine how much money can be set aside to carry out the plan. Economy and saving are necessary. What present expenses can be cut down? A definite plan for the future will best furnish the basis for a division or "budget" of one's income. One way is to make a table of the regular monthly expenditures, with the amount necessary for each item, by the week, month, or year. The budget thus made should be given a fair trial, and each item made to come within the limit set for it. If funds are being continually borrowed from one purpose to be spent for another, the budget loses its value.

SAFETY FOR SAVINGS.—Savings should be placed where they are fully safeguarded, yet yield a fair rate of interest. In general, it is well to have them in a financial institution which loans money on real estate, for preference in loans is often given to stockholders and depositors. Building and loan associations usually lend most of their available funds on real estate, particularly to home owners, and at the same time, they pay a fair rate of interest to depositors. Some banks, especially savings banks, loan largely on real estate and maintain a real estate department for that purpose.

WHERE NOT TO PUT SAVINGS.—Ingenious schemes are used by dishonest companies to attract savings from the unwary home seeker. Some promise high dividends to investors, and also the chance to obtain loans below the market rate of interest. Such schemes are obviously not to be trusted.

A number of concerns advertise loans at a low rate of interest, when it really turns out that interest is still charged on the full amount of the loan even after half or three-quarters of it is paid off. This makes the real rate very high. In some excellent building and loan associations, however, the nominal payment of interest at a fixed legal rate on the whole amount results in quicker retirement of the loan.

Certain "loan trusts" that are run for the profit of the promoters have advertised loans at 3 per cent, but on the other hand pay no interest at all to depositors, who are lured in by the promise of

"cheap" loans. This method is unbusinesslike, and the first few, who may obtain loans cheaply, do so at the expense of later depositors who may receive no interest at all on their deposits for years, and perhaps not obtain a loan when they need it or before the company goes out of business. Such a company receives 3 per cent annually for doing business, whereas a well-managed building and loan association may charge 6 per cent interest on loans and pay 5 per cent to investors for, as a rule, about 1 per cent difference enables them to meet expenses. In every case an investor should note whether he will receive a fair rate of interest if he should discontinue payments or withdraw his deposits at any time; this should not bring a severe penalty. Plans which propose to profit by the inability of any person to make payments are essentially unsound.

It is a safe rule never to invest money in the stock or security of a concern unless the management is in the hands of men known to be capable and honest. High rates of interest and the safety required for investment of savings intended for home buying usually do not go together. American people lose several hundred million dollars of their savings each year by purchasing worthless securities promising large returns.

SPECULATION IN LOTS.—One of the most common ways in which savings are lost is through speculation in real estate. Buying a lot in an improved section when one is ready to build is far different from buying a city or suburban lot where streets have not been put through, and where no water, gas, or sewer mains have been laid. Such a purchase is always in the nature of a speculation. It is well to remember that taxes must be paid on every lot and sometimes special assessments, too. The outgo in holding a lot is certain; profits are uncertain. Money in a savings account, on the other hand, keeps on earning interest for the depositor.

POLICY LOANS UNWISE.—Some home buyers have borrowed cash on their life insurance policies in order to meet their first payment. This action is almost always improvident. It deprives the borrowers' families of the full protection the life insurance should secure them. The presidents of many of the most important life insurance companies advise strongly against policy loans, even though their companies assume no risks in making them.

A loan on an insurance policy, however, is not to be confused with an ordinary real estate mortgage loan which an insurance company may grant. Many of the companies which regard loans on policies as being against the real interest of policyholders take pride in the number of their mortgage loans to home owners.

MORTGAGES.—*First mortgages.*—Obtaining a loan with which to pay the balance between the first cash payment and the total cost of a piece of property is usually a simple matter when the amount

paid down amounts to 40 or 50 per cent of the whole purchase price. The problem becomes harder as the proportion to be borrowed grows larger. No matter what loans are required, it is always best for a person without experience in real estate matters to borrow from a responsible loaning institution, if only for the benefit of its advice in the matter of the validity of the title, seeing that all back taxes and special assessments are paid, that insurance is kept up, that there are no mechanics' liens or other claims against the property, and that the price paid is reasonable and the value of the property not likely to fall within a few years. The fees charged and services rendered by different institutions in arranging a loan may differ substantially and may more than offset a difference in interest rates. In most cases a loan from a good bank, building and loan association, or insurance company is an assurance that it thinks the proposition sound.

When money is borrowed for the purchase of a home the lender generally requires a mortgage or trust; that gives him the right to have the property sold at auction in case promised payments on the interest or principal of the loan are not made regularly. A first mortgage up to 50 or 60 per cent of the value of a house and lot is considered one of the safest possible investments, and it should be easy to obtain such a loan from a building and loan association, savings bank, insurance company, trust company, or from some individual—perhaps the seller of the house.

Second mortgages.—In many cases, however, it will not be possible for the buyer to borrow all the money he requires on a first mortgage, and he may have to borrow additional funds on a second mortgage or note. The holder of the second mortgage takes more risk, consequently rates of interest on second mortgages usually run higher.

Bonuses or commissions of as much as 10 per cent are sometimes required for placing a second mortgage.

The character of the home seeker is often a deciding factor in his ability to obtain a second mortgage on reasonable terms.

Discounts on second mortgages.—The contractor who builds a house may take such a mortgage himself and expect to sell it at a quarter or a fifth less than its face value. This fact should be borne in mind, and he should charge less for the house if the buyer can pay cash. Second mortgages are sometimes obtainable from companies which make a specialty of such business, from employers, and from individuals with money to lend.

LENDER MUST BE HONEST.—The lender, if unscrupulous, may encourage the purchase of an expensive piece of property when he is confident the buyer can not meet the payments, so that he can foreclose the mortgage and buy back the property himself at a forced

sale, when prices may be low. This is an additional reason for dealing with a responsible institution, which will usually advise against a purchase beyond one's means.

FINANCING DURING BUILDING.—If the owner retains the title to his land and pays the contractor as the work progresses, he may have to make some special arrangement to borrow money before the house is complete. He will, of course, have to pay interest on the sum so borrowed while he is still paying rent, and he may consider the interest he pays during the construction period as a part of the first cost of his house.

BORROWING FROM BUILDING AND LOAN ASSOCIATIONS.—Building and loan associations will, in many cases, prove the best means of financing a home, for they are often able to loan as much as 70 to 80 per cent of the real value of a home, which is generally above the limit allowed by law for savings banks and insurance companies. Such a loan, therefore, may avoid the added complications, disadvantages, and expenses that may be involved in case both a first and second mortgage are required. Building and loan associations are often especially helpful in providing means of financing during the construction of a new home. They are usually organized with the chief aim of assisting home buyers and home builders. Their system of selling shares on which payments must be made weekly or monthly has proved an invaluable aid to hundreds of thousands of future home buyers in accumulating savings and furnishes a sound and helpful scheme for paying off the principal of loans.

The officers of these associations are generally able to give very good advice to home buyers and frequently help them to avoid unwise purchases.

PURCHASE WHERE TITLE DOES NOT PASS AT ONCE.—In some States cases arise where better terms can be made when the title does not pass to the buyer as soon as he occupies the home, but remains with the seller for a few months, until the cash payments amount to 25 or 30 per cent of the total value of the property.

Agreements under these general circumstances assume a variety of forms. It is especially important that the legal details be sound in every respect and that the integrity of the seller be well established. It is safest to obtain the advice of a lawyer and observe all the precautions outlined in the section on "Making the purchase," pages 13 and 14.

PAYING OFF THE LOAN BY INSTALLMENTS.—No matter how little or how much one has to borrow, it is good policy to pay off part of the loan at regular intervals. This process of paying off the principal a little at a time is called *amortization*. Thus, on a loan of \$1,000 at 6 per cent interest, payments of \$10 a month, or \$120 a year, will take care of the interest on the loan and cancel the

principal in less than 12 years, leaving the home free of debt. The president of a large savings bank, who has also been president of the savings bank section of the American Bankers' Association, states:

Paying off a loan in installments is like attacking an army in detail. The borrower, instead of having one large payment to look forward to, has a succession of moderate payments, which can be easily met.

The payments agreed on for amortization are usually met regularly, so that the loans are paid off steadily out of savings. This reduces the interest charges and leaves the family much better off financially in case of death or misfortune. Where no amortization is agreed to, on the other hand, many loans are not reduced before they fall due, and savings have not been built up to pay them off. Such loans sometimes drag along for a lifetime, and may be foreclosed when they cause great distress. The prudent course is to start paying off the loan as soon as the purchase is made. Most building and loan associations provide that the loan may be paid off sooner than its maturity if the borrower so desires, and without disadvantage.

No mortgage on a home should be regarded as permanent, for if there is a shortage of mortgage money when it falls due there may be difficulty about renewing it. In the case of second mortgages, especially, this is important, and they should be amortized as quickly as possible.

GENERAL PROPERTY CONSIDERATIONS.

BASIS FOR THE CHOICE.—One thing that a man should never forget when he is buying a home is that the home will be the center of his family life, probably for many years. His children will be brought up in it and amidst its surroundings. In it his wife must do most of her work, and in it both he and his wife will spend most of their leisure time. He should, therefore, look at the different properties available and see how they measure up by these common-sense, practical standards. It is well for the family to picture itself going through its daily routine in the new house—cooking, cleaning, going to work, school, play, etc., at all seasons.

The mere fact that a showy mantelpiece is displayed, that a 4-inch steel I-beam supports the floor, that a radio set has been installed, or that several French plate glass mirrors are built in doors should not determine his choice or induce him to pay an additional \$500 for the property.

LIST OF CONSIDERATIONS.—In making sure that he is acquiring a satisfactory home, a buyer, whether he realizes it or not, usually takes into account most of the factors given below. Several of

them do not apply in the case of purchases in towns and cities of moderate size.

A. General location.

1. Low or high land values.
2. Transportation facilities: (a) To place of work and (b) to shopping centers.
3. Protection offered to homes: (a) Private restrictions, (b) zoning ordinances and city planning, and (c) fire and police protection.

B. Specific location of the lot.

1. Character of the neighborhood.
2. Location with reference to schools and playgrounds for the children.
3. Desirable points for the lot: (a) Shade trees, shrubs, and planting; (b) set of house with reference to sunlight and prevailing winds; and (c) character of the soil and necessity for grading, filling, or draining.

C. Other safeguards in buying property.

1. Danger in buying a lot too long before building.
2. Extent of street and public utility improvements (paving, sidewalks, water supply, sewerage, electricity, gas).
3. Possible assessments.
4. Proportion of lot value to total outlay.
5. Checking property values: (a) Land and (b) house.
6. Plan of house and quality of construction.
7. Steps taken in buying.
8. Examination of title.

GENERAL LOCATION.—Choosing the general location for a home is usually a matter of compromise, but none the less important. A little forethought may show the futility of searching for property in certain sections, or perhaps limit the choice to a given district, which will permit better use of the time spent looking for the right lot.

Low or high land values.—In larger cities one must decide between a small lot in a more convenient and accessible location, where land values are higher, or a larger lot farther away from the center, where land is not so expensive. This problem is often closely bound up with that of a single detached house as compared with a double house, or a house in a row. Detached houses on large lots are preferable, but on narrow lots they frequently have middle rooms that depend for light and air on side yards only 3 or 5 feet wide and may not be so desirable as good row or semidetached houses.

A site with a yard, especially where grass can be grown, is particularly desirable for families with children, and a space for a vegetable garden is also one of the advantages that may go with a good-sized lot.

Transportation facilities.—The general location of the home may depend largely on the part of the city in which the members of the family are most likely to be employed. It should be either within walking distance of the probable place of work or in reach of good transportation. The mere promise that a trolley or bus line will be provided is not enough. Ability to reach shopping centers is important for the housewife.

Protection for the home.—If a city is zoned it is almost always safest to buy in a residential district where there is safety from intrusion by factories, public garages, and scattered stores.

If there is no zoning law, how about private restrictions? Are there any restrictive clauses in the deed? In the deeds for all other houses in the block? If even one or two lots near by are unrestricted, objectionable buildings might be erected on them. Is there a requirement to build a house of a certain minimum cost? Could that much be afforded? Are the private restrictions such that a home will surely be protected? For what period do the restrictions run? It often happens that the private restrictions were made to run for, say, 25 years and they may be about to expire, leaving the home unprotected. Verbal representations concerning other buildings in the neighborhood are of no binding force on their owners.

The advantages of having a home within the jurisdiction of good fire and police department protection are obvious.

SPECIFIC LOCATION.—Within districts that meet the family's needs as to general location, the task of choosing a site may be made easier if the points that affect the price or desirability are kept in mind and can be readily balanced against each other. Many people, for instance, object to a street on which there is much noise from street cars, or on which there is heavy truck traffic at night. Streets carrying through traffic are often dangerous, especially to children.

Character of the neighborhood.—While a family may think that it would like to live close to relatives and friends, this factor should not be given too much weight. Nevertheless, the general type of people living in the neighborhood is important, especially if there are children in the family, who should be brought up in the right kind of surroundings.

Schools, parks, and playgrounds.—Where there are young children much of the family's welfare and peace of mind may depend on being near, say, within a half mile, of parks, playgrounds, and good schools. The opportunity for wholesome outdoor play is the birthright that few care to see their own children deprived of, and if playgrounds and schools are not near by, additional cares and burdens are placed upon the mother.

Desirable points for the lot.—There is no denying the fact that most people prefer a lot that is well set out with trees and shrubs and that

can be made neat and attractive. The set of the house with reference to prevailing winds and to the points of the compass may sometimes be a deciding factor.

Not only the size and shape of the lot but its location in the block deserve attention. For instance, one side of a house may be made most unpleasant if the kitchen or garage of a corner house next door is too close. A corner lot has advantages, but it may be doubly assessed for street improvements, and requires longer fences and sidewalks, which must be cared for both in winter and summer.

In general, land that is well drained is best for residential purposes, and a lot on firm, dry ground is better than one on marshy soil. House foundations resting on filled-in soil almost invariably damage the house by settling. The cost of foundations and cellar may vary greatly with the character of the soil. Sometimes rock close to the surface makes a lot more expensive to develop. Where grading or filling will be necessary an estimate of its cost should be obtained before the lot is bought and added to the price asked for the land. Few people appreciate how much filling may be necessary to bring a low lot up to the right level.

BUYING A LOT.—In many cases a family buys an improved lot and starts building on it within a few weeks or months. This is vastly different, as noted above, from buying several years in advance of building. While there may be enough increase in land values, in the latter case, to give some profit, a speculation is involved. The outgo for taxes is sure, and there may be special assessments for street and other improvements, which must all be added as part of the cost of the lot. There is also a continual loss of interest on the money invested in the lot. Lots are frequently sold to innocent purchasers in a territory that will not be developed for years. It is to be noted that some cities prohibit building where sewers have not been installed. One should consider all the factors mentioned in the preceding pages and obtain advice from some dependable, reputable, local real estate dealer, not from some transient, or fly-by-night promoter, who sells out to "suckers" and moves on.

How much to spend for the lot.—The question of how much to spend for the lot itself depends largely on whether or not it is "improved." Where streets, curbing, sidewalks, water, electric, gas, and sewerage improvements have not been made, a lot may sometimes be obtained for less than 5 per cent of the total cost of the house and lot, and 10 per cent should probably be the upper limit. If all improvements have been made, the cost of the lot frequently runs up to 20 per cent, but it should rarely exceed 25 per cent. "Front-foot" values, as shown by recent genuine sales, and assessed valuations may serve to check values.

The less expensive the lot the more money is left for the house itself, and a well-constructed home on a cheap lot is far more desirable than an unsatisfactory house on an expensive lot. Although a house that is very much more expensive than its neighbors might be hard to sell at a good price, a very cheap house may add nothing at all to the sale value of an expensive lot.

CHECKING PROPERTY VALUES.—A fair appraisal of the house and lot should be obtained from a disinterested third person. The intelligent man usually wants a better guide than the price asked by the seller, who may either consciously or unconsciously ask too much. The value of the house and lot, or the lot alone, is determined largely by its desirability for a home. The general and specific location, and the public improvements available all have their influence. Their value can best be estimated by an expert.

An appraisal of the property by a building and loan association is generally safe. Sometimes financial institutions will loan approximately 60 per cent of the value of the property. If they will not loan more than 40 per cent of the price asked, it may be assumed that the price is too high. The judgment of dependable real estate dealers is always worth while.

The reader may find some suggestions to help him estimate the relative value of different houses in the section on "House plans," pages 14 to 16; on "Building," pages 16 to 19; and on "Buying a house," pages 20 to 22.

MAKING THE PURCHASE.—Customs vary in different localities as to the method of arranging a mortgage and completing the purchase of a piece of property. In many places it is common to have a purchase offer or a sales contract signed in advance of the actual transfer of the property. In the purchase offer the buyer agrees to pay the holder a certain sum for the property, provided certain conditions are complied with. When this offer is accepted by the owner it can be used as a basis for arranging loans with which to complete the transaction.

If the intended buyer makes a cash deposit with his offer it is particularly important that he should specify in it whether movable property, such as window shades, gas fixtures, stoves, and other items are included, and should state that risk from fire or elements is assumed by the owner until the title passes. The offer should also be dependent on whether the buyer obtains a satisfactory loan to get the money needed to pay for the property, and on the owner's furnishing papers showing a good marketable title, free from back taxes, liens, encumbrances, or objectionable easements. It is important for a buyer not to bind himself until he is sure exactly what he is to pay for and has made definite financing arrangements.

Otherwise he may suffer severe loss. The services of a good lawyer at the time the purchase offer is made may be advisable.

Examination of title.—One must be certain that the title to a piece of property is good. The validity of a title may be insured by a guarantee company, or its soundness assured by an abstract company or a competent lawyer. In obtaining a loan a bank will insist on some such evidence that the title is good. Some banks and building and loan associations include a title search in the transaction. The buyer should satisfy himself that the boundaries and corners of the lot are legally as represented to him.

In connection with the title it is well to note whether there are any easements which might, for instance, grant a right of way to a neighbor, or allow a telephone company to place its poles upon or near the lot, or a water company the right to run its mains across the property.

Sometimes the title to the house is taken out in the name of both husband and wife.

HOUSE PLANS AND QUALITY OF CONSTRUCTION.

The buyer of a finished house, or the builder of a new house, can safely judge many of the points of design and construction for himself. But he may well test his conclusions by consulting a disinterested architect or good builder. He should be willing to pay a small fee for this service, as it will be well worth it for his own guidance.

Few houses will have all the good points desired and, as in the case of the site, the choice will be a compromise. In general, a good quality of construction and a reasonably suitable arrangement of rooms should be given first consideration.

Methods of insuring a good quality of construction in building a new house and points to be examined in an old house are discussed in later sections, but it is believed that readers, with a taste for mechanical details, will find the Department of Commerce pamphlet, *Small Dwelling Construction*, most useful. Directions for obtaining this pamphlet are given on the back cover.

GENERAL ARRANGEMENT.—Before agreeing to buy a home, or before building one, the plan or design must receive careful attention. Not all houses are arranged for the convenience of the occupant. For example, there are houses in which the dining room and kitchen are separated from each other by another room, not a service pantry. This means that as long as that house is used the housewife must walk back and forth, taking a large number of unnecessary steps. In some houses it would seem that no attempt had been made to make the housework easy. Each room should have ample light, and there should be wall space for the owner's beds, bureaus, piano, and other furniture.

LIVING ROOM AND FIREPLACE.—The living room will be the most used of all the rooms, and should, therefore, be well lighted and large enough for the family needs. If the front door opens directly into the living room, there is a danger of drafts in winter, and in a cold climate difficulty in keeping the living room heated. A vestibule or storm door may prevent this.

DINING ROOM.—A large dining room is a matter of choice. Where it is used but three times a day, it is the most expensive room in the house. In many small houses a dining alcove in the living room or kitchen has proved satisfactory.

KITCHEN.—Until recently little attention has been given to the arrangement of the kitchen. For the woman who does her own housework, the location of the sink, drain boards, ice box or refrigerator, and stove, with reference to natural and artificial light and to each other, is most essential. There should be some provision for carrying off the fumes from the gas range and gas oven. To lessen fatigue, it has been found that the front of the sink should be 34 to 36 inches from the floor. A corner kitchen, with windows in both outside walls, providing cross ventilation, has many advantages. Convenient closets, or cupboards, are also desirable.

BEDROOMS AND CLOSETS.—Bedrooms need not be very large but should have plenty of light and air, and should allow beds, dressers, chests of drawers, and chairs to be placed without interfering with doors, windows, or heating outlets. Cross ventilation is most desirable. It is not best to have bedrooms opening directly into the living room. If possible, entrance should be from a passage or hallway. Ample clothes closets are most necessary, particularly in small houses where there is little room for storage.

BATH ROOM.—The bath room should have a window large enough to keep it well aired. Sole access to the only bathroom in the house should not be through a bedroom. Showy tile walls and floors are less necessary than substantial convenient fixtures and plumbing.

STAIRWAYS.—One should make sure that the stairways are easy to climb, have plenty of head room, and enough space for easy moving of furniture. Will there be a draft downstairs into the living room?

BASEMENT.—If there is a cellar or basement with a heating plant or a laundry in it, this should be easy to enter, both from the inside of the house and the outside. Concrete or smooth masonry floors are desirable, and there should be attention to convenient fuel storage and openings for receiving coal and removing ashes and trash. The basement should be damp-proof, and have drain tile laid outside the foundation walls if necessary to insure dryness. Screening of the cellar windows and other precautions to prevent rats and mice from entering are desirable.

CONVENIENCES.—The electric and gas fixtures should be conveniently arranged for the comfort and use of the occupants. If electricity is installed, special outlets for conveniences in each room are valuable.

EXTERIOR OF HOUSE.—The outside of the house is also important. The buyer or builder should make sure that he wants to live for 365 days a year for many years in a house that looks like the one he has chosen.

SETTING OF HOUSE.—He should note whether the house is set out conveniently to the street and is well suited to the lot and surroundings. Arrangement of the yard with garden, garage, driveway, clothes-drying arrangements, etc., should be planned in advance, and not left until after the construction has started.

How the house faces with respect to the sun is very important. Will there be sunlight in the living rooms and sleeping rooms?

BUYING OR BUILDING.

The prospective home owner may either buy a finished house or buy a lot and have a house built for himself. The man who is unable to make the cash payment required on a house may be able to make payments on a lot. A man may find a house of which he highly approves or one which he can easily change to suit his needs. If the price is right, it may be desirable to buy. His judgment as to materials and construction may be untrained and the house which he would build might not be as good as the one he could buy.

A completed house may often be bought for less than one could build it, due to the extra expense of building one house as compared to the cost of building a dozen or a score of houses at the same time, which is frequently done by large companies. Every prospective home owner must decide which to do—buy or build—and he should investigate both plans thoroughly before he decides.

BUILDING A HOUSE.

In building a house one should be sure:

1. To know the family's requirements.
2. To have good plans.
3. To have building operations well supervised.
4. To have explicit contracts, duly signed, and drawn with due regard to lien laws.

KNOWING ONE'S WANTS.—Very frequently a home builder starts with only a poor idea of what he wants in the way of a house, or begins to build from a sketch he has worked out alone. Such houses are rarely satisfactory, and as the house is being built changes must be made. This is costly, for the price paid for extras is not obtained under competitive bidding and is usually higher. One should never

attempt to build without having a plan that satisfies him and that has been made or checked by a competent architect. It is usually hard to sell a house designed by an amateur.

COMPLETE HOUSE PLANS.—The best insurance of having a house built right is to build from plans that are complete and insure good construction throughout. Many of the plans obtained free are inadequate and unsatisfactory, as is shown by the extras and changes that are usually required after construction has started. House plans should be so complete that the home builder, once his contract is signed, will not have to make extra expenditures, which may seriously upset his financing arrangements.

Plans should be designed by some competent person or bought from some organization that provides a complete plan service, such as the Architects' Small House Service Bureaus, which are nonprofit-making organizations controlled by the American Institute of Architects and indorsed by the United States Department of Commerce.

Specifications should always go with the plans, and a complete bill of materials or quantity survey is most useful. This survey is the guide to buying, for it gives a complete list of the items going into the building. If the survey is well made it will not be necessary to order extras every day. There will be no extra delivery charges for small lots. If standard sizes are specified in the survey, not only can they be obtained at a lower cost but renewals and replacements will cost less.

OBTAINING BUILDING PERMIT.—In most cities it is necessary to obtain a building permit from the municipal authorities, for which a small fee is charged. The plans must be shown to the authorities to see that they conform to the building code, the housing code, and the zoning ordinance.

CONTRACTING WITH ONE OR MANY.—The contract for the finished house may be placed with a single contractor who will be responsible for the entire job. This is usually the most satisfactory way, for the contractor may be able to secure better terms and supervise the work more effectively than the home builder. Ordinarily a dependable contractor is able to judge the quality of the work better than the owner. Where a contract is let to a single contractor on a lump-sum basis the owner knows at the start what the cost of the house will be, provided his plans are complete and he does not have to allow for extras.

Sometimes most of the work is let to a general contractor, and separate contracts are made by the owner for the lighting, heating, and plumbing equipments.

Occasionally the owner lets separate contracts for each part of the work and supervises it himself, but this procedure is usually unsatisfactory.

SELECTING THE CONTRACTOR.—Builders of a home frequently make the mistake of selecting some "very nice man," and assuming that he will build the house at the lowest possible figure. As a rule, it is best to obtain the names of several dependable contractors whose financial standing is good and take bids from these, in order to check against excessive costs. It is not necessary to accept the lowest bid, and it may be well worth while to pay a little more to a contractor who is dependable and has a reputation for good construction work to live up to. But it is not fair to ask bids from a contractor unless it is intended to give his bid reasonable consideration.

BUILDING CONTRACTS.—There are three main types of contracts that are used in building work:

First. The contractor may be paid a lump sum for the work he undertakes.

Second. The contractor may be paid for all materials and labor, and receive in addition an agreed percentage of their cost.

Third. The contractor may be paid for materials and labor, and a fee for supervision fixed in advance.

The first, or lump-sum basis, has the advantage of settling the cost in advance. The second method does not settle the total cost in advance, and unless it is modified the contractor will profit through increased expenditure for labor and materials.

The contract forms should be drawn up with strict attention to legal requirements and should be fair to both parties. It is advisable that they should provide for arbitration of disputed points before a third party. This insures a quick form of settlement for disputes that might otherwise hold up completion of the contract or lead to court action. The American Institute of Architects issues easily obtainable standard contract documents that satisfy the requirements mentioned.

ALL CONTRACTS SHOULD BE SIGNED.—The signature of both the owner and the contractor should appear not only on the contract but on the specifications and drawings, all of which should be included as a part of the contract. This is most important in case of any disputes, particularly if action in the courts should arise.

PAYING CONTRACTOR.—Before making the final payment to a contractor, care should be taken to find out that all his bills for wages and materials have been paid. If one borrows from a building and loan association, bank, or insurance company its officials will probably help in making sure on this point. In some States lien laws make the owner of the house responsible for all bills. He is the only man having material evidence of having received the benefit of labor and materials. Should the workers or material dealers not be paid by the contractor the law may give them a preferred claim or lien on

the property, and the owner may have to pay a second time for such work or materials as the contractor failed to pay for.

WAYS OF REDUCING THE BUILDING COST.—A family always wants in a house a number of things that are not absolutely needed. If funds are limited, it is wise to leave some of the finishing touches until the money is in hand to pay for them. This is sometimes true even when the actual cost with the workmen on the job would be less than it would be later.

1. It has been estimated that on a five or six room house \$50 to \$150 may be saved by omitting basement partitions.

2. A porch may be added at any time, and by leaving it off \$300 to \$600 may be saved at a time when the initial cost is eating into ready funds.

3. Stock sizes of doors, moldings, fittings, and sash cost less than special millwork, and there is less waste. There are plenty of good styles in the stock sizes, and the architectural effect is often better than when unusual and unique shapes are used.

4. Wide siding may be more attractive than narrow, but the price at times is about twice as much.

5. Planting of the yard may also be deferred.

There are many other places where desirable *economies* may be practiced, but slipshod workmanship or the use of faulty materials should always be avoided, as it is costly in the long run and may necessitate repairs and replacements shortly after the house is completed. It is better to build a smaller house well than to have a larger one badly built.

THINGS WHICH CAN NOT BE SEEN.—In the completed house the owner can not determine the quality of certain materials or workmanship. For example, when a house is finished he will not be able to inspect the quality of electric insulation, nor can he see whether or not there has been a proper nailing of studding, and bridging of joists, or if there is good fire stopping. Concealed parts can not be seen and appraised after the building is erected. In part, the owner will have to rely upon examination of the quantity survey and the work of the building inspector. It is easy to hide poor construction. The studding and the upper floor joists may be of very poor quality of lumber. Brickwork that is covered may conceal poor workmanship as well as defective brick. The quality of subfloors can not be observed from an inspection of the completed building if the ceiling has been plastered or ceiled. For protection from shoddy work the owner must depend upon the contractor, the architect, the building inspector, and his own observation *during* the period of construction.

BUYING A HOUSE.

BUYING A NEW OR AN OLD HOUSE.—In buying either a new or an old house, the condition of the building and the quality of the construction must be carefully examined. Some points to be looked for are the same whether the house is new or old, but if the old house has not been kept in good condition it may be necessary to make repairs promptly. The house may need a new roof, or require painting, or some rooms need replastering, and others require papering. Again, the plumbing pipes may be badly rusted or the furnace need replacement. Many other improvements may be necessary, so that in addition to the first cost, the purchaser may be obliged to spend from \$500 to \$1,000 to put an old house in order. If the house is badly out of repair, it may cost still more.

POINTS TO BE EXAMINED.—A buyer should look about the house very carefully to see if there are any signs of settling about the walls and foundations. The foundation walls should be examined for cracks or leakage. The basement must be dry and have a floor drain. Center posts should be inspected to see if they are sound and free of dry rot at top and bottom. It is well to look at the bottoms of partitions to see if the girders and floor beams supporting the floor are level and show no signs of sagging. Cracks should be looked for in outside walls if they are of brick, tile, or stucco.

Condition of plaster means much.—The condition of the plaster is a very good indication as to whether or not the house was well braced when it was built. Long cracks with wide openings, especially diagonal cracks, are significant, and should be looked for. Cracks over large doors and windows generally indicate that the supports over these openings are not strong enough, and there will always be trouble at these places. Is the plastering pitted, cracked, falling off, chipped? Leaks from the roof or walls, or around windows and outside doors are often revealed by stains on the plaster. Are the walls damp because the plaster has been applied direct to the masonry?

Woodwork.—The doors, windows, floors, and millwork should be looked over carefully. Do the floors squeak? Are there wide openings between the boards? Are the floors level? Are the casings warped or pulled away from the plastering? Do the doors swing freely? If a door does not close, perhaps the whole frame of the house has sagged. Special attention should be paid to this. Do the drawers and cupboard doors work easily?

Plumbing fixtures.—What kind of plumbing fixtures are used? Are they in good condition? Is the enamel ware stained or chipped? Are the fixtures of a modern type? Are they uninclosed by woodwork so that they can easily be kept clean? A poor connection at the base of the water-closet is likely to leak, often discharging on the

bathroom floor. This is unsanitary and disagreeable, while repairs are apt to cost more than with one of the good types. The difference in first cost is so slight as to make the installation of a faulty device inexcusable. Is there a clean-out at the base of the soil pipe stack so that the drainpipe can be cleaned? A buyer should know whether the faucets are in good order and whether the water runs through them freely without hissing. In colder climates the water pipes and plumbing fixtures should be so located and protected that they will not freeze.

Heating plant.—The heating plant should be carefully looked over. The grates may not be in good condition and the insulation may be out of place and insufficient. In the case of a house that has been used, one should find out whether it is easy to heat in winter and how much coal is required. Poor installations may make it practically impossible in cold weather to heat certain rooms or even a whole side of a house.

Painting.—An inspection of all the woodwork of a house, inside and out, will tell a buyer whether he will immediately have a job of repainting. Is the paint blistered, peeled off, or discolored? Is the varnish off the floors? Are suitable colors used? If the house is of brick or stone the masonry joints may require pointing from time to time.

Roofing.—The roofing is apt to deteriorate rapidly. If the units are curled or broken, some replacement will have to be made. A shingle roof in good repair shows the shingles lying flat. The downspouts and eaves troughs should be looked over to see if any are rusted out. Leaks in roofs are often indicated inside by stains on the plaster.

Other items.—Is the house properly wired for electricity? What proof is there that the insulation of wiring in the walls was inspected? Is there good pressure on the gas jets? Do they leak?

Is adequate fire protection afforded in the construction of the chimneys and around them? A chimney through which smoke can leak into the house is dangerous.

Is there sheathing and building paper on the house? This should be known, especially in cold climates. Are windows and doors weather-stripped? Is the mortar between brick and stonework sound?

Previous owners should be asked whether the house was comfortable, whether it was easily heated, and whether or not the drainage lines had to be cleaned out frequently.

The buyer should satisfy himself as to the condition of stoves, lighting fixtures, and screens.

One should find out when the house was built, and by whom.

Does the cellar get damp and have moist walls, due to poor masonry work, lack of rain leaders, rising ground water, leaking pipes, or imperfect drainage around the foundation wall?

Special hardwood floors, overdecorated and futile fireplaces, elaborate sun porches, and certain frills and luxuries often make a buyer forget some of the far more important points already mentioned. The value and usefulness of a house is not determined by whatever may first strike the eye.

Other points to be noted in buying a house, treated in previous sections, are the validity of the title to the land, and whether there are gas, electricity, water, and sewerage connections; or, if the house is not in the city, whether there are proper sanitary conditions and water supply.

MAINTENANCE COSTS AND EXPENSES OF HOME OWNERSHIP.

In addition to payments on principal and interest of loans on a home, allowance must be made for some or all of the following expenses: (a) Renewals and repairs, (b) property tax and special assessments, (c) insurance, (d) water tax or rent, (e) accessories, and (f) improvements.

In addition to the above, some home owners add in the interest which they would otherwise receive on the amount of their cash payment or equity.

RENEWALS AND REPAIRS.—In considering annual expenses, maintenance is often neglected by those who buy new homes. The amounts spent will depend largely on the owner's ability and readiness to be his own repair man. After a few years certain parts of the house will need to be repaired or renewed. The outside sash and trim of all houses and the entire exterior of some will need repainting at intervals. This is an expense which many home buyers do not consider when they buy.

The interior walls will need repapering or repainting every few years.

Those who purchase an old house often fail to consider whether the roof must be renewed. This may cost from \$100 to \$400.

There are many smaller items of expense which will be called for both in a new house and in an old house. The prospective home owner should consider these expenses before deciding how much he can pay for the house.

The amount spent for renewals and repairs can not be determined by any fixed rule. Their cost depends partly on choosing the right workmen, and varies with the quality of construction, the age of the house, and the alertness of the owner in making minor repairs before more costly work is necessary.

This pamphlet makes no attempt to state a fixed allowance for depreciation. A house that is maintained well and kept up to date with modern improvements might not decline appreciably in value over a long period of years while another might become worthless within a short period.

PROPERTY TAX AND SPECIAL ASSESSMENTS.—In the purchase of a house it is well to find out the tax rate and the assessed valuation, so that the amount of taxes to be paid each year may be estimated.

If the street is to be paved, or new water, sewer, or gas mains, or electric light lines are to be put in, there may be special assessments charged against the property. It is well to find out which ones of these must be allowed for.

INSURANCE.—The rate of fire insurance may depend upon the materials used in building, the fire protection afforded in construction, and the location of the house, but it is rarely as much as one-half of 1 per cent of the value of the house. Insurance is necessary not only to protect the mortgage holder but also the equity of the owner. It is always required by the bank, trust company, or building association making a loan.

WATER TAX OR RENT.—This tax is usually small but should be considered in estimating fixed expenses.

ACCESSORIES.—The purchaser of a new house usually finds that he must spend something extra to make the house comfortable. As a rule he must buy screens for all windows and some of the doors. In cold climates he frequently finds it advisable to buy storm windows and storm doors, or at least to install weather stripping. Awnings, as a rule, must be purchased by the owner. Frequently \$200 or more must be spent on the house before it is in satisfactory condition.

IMPROVEMENTS.—The owner is likely to make certain improvements and changes that call for expenditures. In a house of low cost many desirable features are omitted and, as a rule, the family insists on adding some of them. It may be decided, for example, to put in partitions, if none have been installed, separating the coal bin, the fruit closet, and the laundry from the rest of the cellar. This may cost from \$50 to \$150. Other improvements often added are: Sleeping porch, a screened-in porch, tile in the bathroom, papering other rooms, sodding the yard, and storm windows or doors.

CONCLUSION.

The whole message of this pamphlet may be summed up into the sound advice:

"Make sure you are right, and then go ahead."

It is hoped that prospective home owners may find whether they are on the right track by checking their plans with the suggestions in this pamphlet, and that the homes so acquired will cause them no regrets.

If the readers of this pamphlet insist on good, honest standards in the houses they build or buy they not only benefit their families and themselves but perform a broader service. They help raise the quality of homes in the United States and provide a sound basis for wider home ownership.

APPENDIX

FINANCING TABLES.

The following table recognizes the fact that families having the same annual income may not be able to devote the same amount toward the purchase of a home. For example, a family of two without dependents, situated in a village where living costs are low, can pay out more annually for a home than can a family with children and other dependents living in a large city. The overlapping incomes in the table are thus necessary to cover even ordinary differences in the amounts that families with the same income will be able to spend toward a home after they have paid for food, clothing, and other necessities.

The annual expenses involved in purchasing and maintaining a home of a given price may also vary.

The table, therefore, does not attempt to set up arbitrary standards, although it is fairly typical and should be useful as a basis from which to start figuring.

Table showing income, value of home, and typical annual expenses for house and lot.

SECTION I.—CASH PAYMENT OF 20 PER CENT OF TOTAL VALUE.

	\$3,000	\$4,000	\$5,000	\$6,000	\$7,000	\$8,000	\$9,000	\$10,000
1. Value of house and lot.....								
2. Annual income.....	1,200 to 1,800	1,600 to 2,400	2,000 to 3,000	2,400 to 3,600	2,800 to 4,200	3,200 to 4,800	3,600 to 5,400	4,000 to 6,000
3. First cash payment (20 per cent of value).....	600	800	1,000	1,200	1,400	1,600	1,800	2,000
4. Amount of loan.....	2,400	3,200	4,000	4,800	5,600	6,400	7,200	8,000
5. Interest and amortization (12 per cent of loan).....	300	400	500	600	700	800	900	1,000
6. Estimated taxes, insurance, and upkeep.....	120	160	200	240	280	320	360	400
7. Total annual expenses.....	420	560	700	840	980	1,120	1,260	1,400
8. Savings included in above total (first year).....	150	200	250	300	350	400	450	500
9. Expenses comparable with rent (first year).....	270	360	450	540	630	720	810	900

NOTE.—Assuming an initial cash payment of 20 per cent of the total value, the annual cash outlay (item 7) in this section is about as low as can ordinarily be arranged for the first few years. The financing charge might be cut down later on, when part of the principal of the loan has been paid off, but the whole debt will be canceled in about 12 years if the payments given in the table are continued regularly. (See General Notes, page 26.)

Table showing income, value of home, and typical annual expenses for house and lot—Continued.

SECTION II.—CASH PAYMENT OF 30 PER CENT OF TOTAL VALUE.

	\$3,000	\$4,000	\$5,000	\$6,000	\$7,000	\$8,000	\$9,000	\$10,000
1. Value of house and lot.....								
2. Annual income.....	1,200 to 1,800	1,600 to 2,400	2,000 to 3,000	2,400 to 3,600	2,800 to 4,200	3,200 to 4,800	3,600 to 5,400	4,000 to 6,000
3. First cash payment (30 per cent of value).....	900	1,200	1,500	1,800	2,100	2,400	2,700	3,000
4. Amount of loan.....	2,100	2,800	3,500	4,200	4,900	5,600	6,300	7,000
5. Interest and amortization (12 per cent of loan).....	252	336	420	504	588	672	756	840
6. Estimated taxes, insurance, and upkeep.....	120	160	200	240	280	320	360	400
7. Total annual expenses.....	372	496	620	744	868	992	1,116	1,240
8. Savings included in above total (first year).....	126	168	210	252	294	336	378	420
9. Expenses comparable with rent (first year).....	246	328	410	492	574	656	738	820

NOTE.—Assuming an initial cash payment of 30 per cent of the total value, the annual cash outlay (item 7) in this section is about as low as can ordinarily be arranged for the first few years. The financing charges might be cut down later on, when part of the principal of the loan has been paid off, but the whole debt will be canceled in about 12 years if the payments given in the table are continued regularly. (See General Notes, page 26.)

SECTION III.—CASH PAYMENT OF 40 PER CENT OF TOTAL VALUE.

	\$3,000	\$4,000	\$5,000	\$6,000	\$7,000	\$8,000	\$9,000	\$10,000
1. Value of house and lot.....								
2. Annual income.....	1,200 to 1,800	1,600 to 2,400	2,000 to 3,000	2,400 to 3,600	2,800 to 4,200	3,200 to 4,800	3,600 to 5,400	4,000 to 6,000
3. First cash payment (40 per cent of value).....	1,200	1,600	2,000	2,400	2,800	3,200	3,600	4,000
4. Amount of loan.....	1,800	2,400	3,000	3,600	4,200	4,800	5,400	6,000
5. Interest and amortization (12 per cent of loan).....	216	288	360	432	504	576	648	720
6. Estimated taxes, insurance, and upkeep.....	120	160	200	240	280	320	360	400
7. Total annual expenses.....	336	448	560	672	784	896	1,008	1,120
8. Savings included in above total (first year).....	108	144	180	216	252	288	324	360
9. Expenses comparable with rent (first year).....	228	304	380	456	532	608	684	760

NOTE.—The total outlay (item 7) in this section is based on the assumption that a family able to pay 40 per cent of the value of a home in cash will normally find it best to pay off the loan in installments, at least as rapidly as in the preceding cases. (See General Notes, page 26.)

NOTES ON FINANCING TABLES.

The table on the preceding pages will not apply to every single case, but it does indicate about how expensive a home can usually be bought with a given income.

It shows cash expenditures only and does not outline a complete cost accounting system for home buying. The fact remains that the family takes charge of its own rent bill, and reduces the loan each month until finally the house and lot is owned free and clear, whatever it may then be worth.

There is no calculation in the table for loss of interest on money used for the first payment, nor for loss of interest on amortization payments that might have been deposited or invested elsewhere.

It is also true, nevertheless, that in most cases savings devoted to paying for a home would not be made if the family continued to rent and had not entered into an obligation to save.

Nothing is charged for depreciation, but, on the other hand, no allowance is made for possible increase in the value of the land.

If rents should rise generally there would be a further saving not accounted for in the table, and when the debt is canceled in 12 or 14 years the only expenses comparable with rent will be taxes, insurance, and upkeep.

ITEM 1. Value of house and lot.—The value of the house and lot is the basis from which other expenses in this table are computed.

For figuring probable expenses when a home is offered at an odd price, say \$4,350, the necessary percentages may be obtained readily from the last column in each section of the table by moving the decimal point four places to the left. Thus, in Section I the total annual expenses (item 7) require are 14 per cent of the value of the house and lot, and for the \$4,350 house, in the case of a 20 per cent cash payment, would be \$4,350 by 0.14=\$609.

ITEM 2. Annual income.—Of a number of families with the same income it is unlikely that any two picked at random will wish to spend the same amount for shelter. It is for this reason that the income groups in the table are made to overlap. The size of the family, its preferences as to location, the ages and number of children, varying conditions between cities, and other circumstances make the problem one that each family must solve for itself. No rule can be set up that will apply in all cases. It is assumed, however, in this table, that the value of the house and lot will lie between $1\frac{1}{2}$ and $2\frac{1}{2}$ times one's annual income, the ordinary proportion being around 2 times.

For example, a family has an income of \$2,700 to start with. Then $1\frac{1}{2}$ by \$2,700=\$4,050; and $2\frac{1}{2}$ by \$2,700=\$6,750. The family will, therefore, expect to occupy a house worth from \$4,500 to \$6,750.

To illustrate differences between families, it is apparent that one living in a small town and able to have a vegetable garden and keep poultry might afford a more expensive home than a family with the same income living on a smaller city or suburban lot with higher taxes, and with street car or railway fares added to the cost of living.

ITEM 3. First cash payment.—Section I assumes a cash payment of 20 per cent of the value of the house and lot. Sections II and III are based on cash payments of 30 and 40 per cent, respectively, and show how much the burden of financing is reduced by a larger cash payment. As stated in the text on page 4, it is not always necessary to have as much as 20 per cent of the total value of the house and lot in hand to start with, but with less it is harder to obtain loans at a low rate of interest, and the annual financing charges become greater.

It should be remembered that in many communities there is at one time or another a shortage of money available for loaning to home owners, and lending institutions

may be able to serve the public best by lending first to those who have a large cash payment in hand. Again, where the price of homes is inflated, banks may be serving the real interest of borrowers as well as of themselves by declining to make loans for a higher percentage of current selling prices of homes.

ITEM 4. Amount of loan necessary.—The amount of the loan or loans required is obviously the difference between items 1 and 3.

ITEM 5. Payments for interest and amortization.—In Section I this item amounts to $12\frac{1}{2}$ per cent of the amount loaned as shown in item 4. This is slightly higher than the 12 per cent given in Sections II and III, because, in the first case, a second mortgage may be necessary, with less favorable interest rates or other terms. The sums paid for financing may vary, as noted under the sections of the table, and according to local prevailing rates of interest and amortization required. It generally is considered best to pay off indebtedness within 15 years, or less, and the plan of payment should be arranged on such a basis. This does not mean, however, that mortgages should not run for a shorter period and be renewed when due. This may be best if interest rates are high at the time the loan is made.

For most families, monthly payments are far more desirable than payments at three or six month intervals.

Where a loan is obtained at 6 per cent interest, it can be paid off in less than 12 years by payments each month of 1 per cent of the whole original loan, totalling 12 per cent each year. If the loan is at 7 per cent interest, then only a smaller part of the regular payments is left for paying off the principal, and it will take about 12 months longer to cancel the loan than when the interest rate is 6 per cent.

One plan used by many banks and building and loan associations requires fixed monthly payments, but all sums above interest on the outstanding loan are applied directly to reducing the principal. The principal, therefore, decreases regularly and a larger proportion of the payments is used each month for amortizing the principal until the entire loan is paid off.

Under a plan used by some building and loan associations, the whole loan is nominally left outstanding until the payments in excess of interest, which are applied toward "shares," and which draw compound interest, amount to enough to pay off the loan. Although this plan may under certain circumstances be of some disadvantage to the borrower, the net result to him, provided all goes well, is nearly the same as with the plan described above. With the same monthly payments applied against the same loan, it would be retired in about the same number of months.

Sometimes the payments for amortization are applied directly to reducing the loan and are at a fixed rate, say \$250 a year for a \$3,000 loan, and the interest payments, therefore, become steadily less. This plan has the disadvantage, for many people, of requiring the largest payments at first, but it is safer than plans which provide for gradually increasing total payments each year.

According to most schemes, it would be possible, after the first few years, to cut down the payments. For instance, in the tables a new arrangement at the end of seven years might reduce financing charges one-half or more, but this would mean that the loan would not be retired so soon.

ITEM 6. Taxes, insurance, and upkeep.—Local tax rates on real estate usually amount to $1\frac{1}{2}$ to $2\frac{1}{2}$ per cent of the market value of the property. Fire insurance rarely amounts to one-half of 1 per cent of the value of the house alone; yearly upkeep is frequently estimated at 1 per cent of the value of the house itself; but as stated in the text pages 22 and 23, it varies greatly with the age and quality of the house and the attention that the owner himself gives it. In any city the tax and insurance rates can easily be found out, and it is believed that many home owners find their expenditures for item 6 amount to less than the sums stated in the table. In each case in the table this item amounts to 4 per cent of the value of the house and lot.

ITEM 7. *Total annual expenses.*—The sums in this item are obtained by adding the amounts in items 5 and 6, so it follows that nothing is allowed under this heading for water, fuel, gas and electricity bills, telephone, special assessments, accessories, or improvements. Some of these are contingent expenses that do not have to be allowed for when a family is renting, but may add to the value of the property.

The majority of people, while they are paying for a home, probably spend between 18 and 35 per cent of their income for the purposes of item 7.

In Section I, the sums in item 7 amount to 35 per cent of the minimum income given in each column for item 2. This includes for the first year, 12½ per cent for savings and 22½ per cent for items comparable with rent. In Section III the sums in item 7 amount to 18.7 per cent of the larger incomes in item 2.

ITEM 8. *Savings.*—This item represents the amount that is *paid out* during the first year on the principal of the loan, assuming that half of item 5 is paid for interest and half for amortization. The annual savings grow larger progressively as the principal of the debt becomes less.

The amount that can be saved for amortization varies with each case. Thus, a family of two with an income of \$1,800 a year, having neither children nor relatives to support, can pay off a loan faster than a family with several children and perhaps an aged parent to take care of.

ITEM 9. *Expenses equivalent to rent.*—The figures opposite this item equal item 7 minus item 8, or the difference between the total expenses for the home the first year, and the amount of savings that is used toward paying off the loan. This item grows smaller as item 8 increases, and, finally, when the home is paid for fully, the only ordinary expenses will be taxes, insurance, and upkeep.

**DEPARTMENT OF COMMERCE
WASHINGTON**

PUBLICATIONS IN RELATION TO HOUSING.¹

RECOMMENDED MINIMUM REQUIREMENTS FOR SMALL DWELLING CONSTRUCTION.

By the Building Code Committee: Ira H. Woolson, chairman; Edwin H. Brown, William K. Hatt, Rudolph P. Miller, J. A. Newlin, Ernest J. Russell, and Joseph R. Worcester. 30 illustrations. 108 pages. Government Printing Office, Washington. Price, 15 cents.

A ZONING PRIMER.

By the Advisory Committee on Zoning: Edward M. Bassett, Irving B. Hiatt, John Ihlder, Morris Knowles, Nelson P. Lewis, J. Horace McFarland, Frederick Law Olmsted, and Lawrence Valler. 12 pages. Government Printing Office, Washington. Price, 5 cents.

A STANDARD STATE ZONING ENABLING ACT.

By the Advisory Committee on Zoning. In press.

REPORT OF THE COMMITTEE ON PLUMBING CODES: Plumbing Requirements for Dwellings and Similar Buildings.

By the Subcommittee on Plumbing: George C. Whipple, chairman; Harry Y. Carson, William C. Groeniger, Thomas F. Hanley, and A. E. Hansen. (In preparation. To be printed by the Government Printing Office, Washington, 1923.)

MATERIALS FOR THE HOUSEHOLD.

Government Printing Office, Washington. 254 pages. Price, 25 cents.

MIMEOGRAPHED MATERIAL.²

BUILT-IN GARAGES: Safe Construction. 4 pages.

WEATHERPROOF YOUR HOUSE. 4 pages.

LIST OF ZONED MUNICIPALITIES, AND STATE LAWS RELATING TO ZONING. 8 pages.

BUILDING MATERIAL PRICES. (Retail, as paid by contractors in 50 cities.) (Monthly.) 5 pages.

¹ Printed matter may be obtained from the Superintendent of Documents, Washington, D. C., payments to be made by money order or New York draft, currency at sender's risk. Postage or foreign money not accepted.

² Single copies of mimeographed material may be obtained on application to the Division of Building and Housing, Department of Commerce, Washington, D. C.

msH # 24519

**END OF
TITLE**